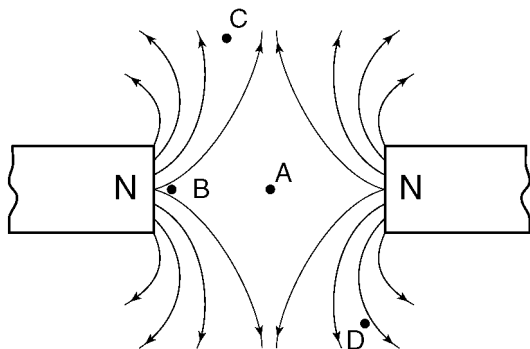


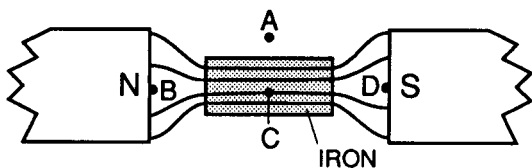
# Regents Magnetism

1. The diagram below shows the lines of magnetic force between two north magnetic poles.



At which point is the magnetic field strength greatest?

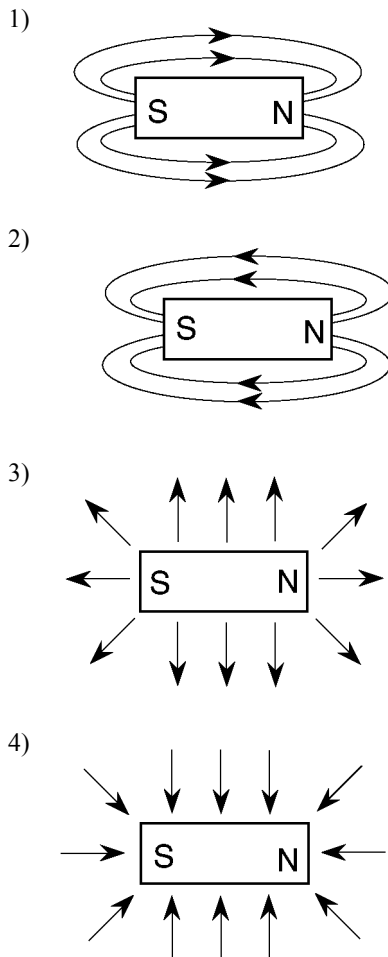
- 1) *A*
  - 2) *B*
  - 3) *C*
  - 4) *D*
2. The diagram below shows the magnetic field that results when a piece of iron is placed between unlike magnetic poles.



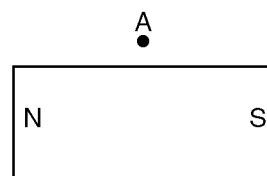
At which point is the magnetic field strength greatest?

- 1) *A*
- 2) *B*
- 3) *C*
- 4) *D*

3. Which diagram below best represents the magnetic field near a bar magnet?



4. The diagram below shows a bar magnet.

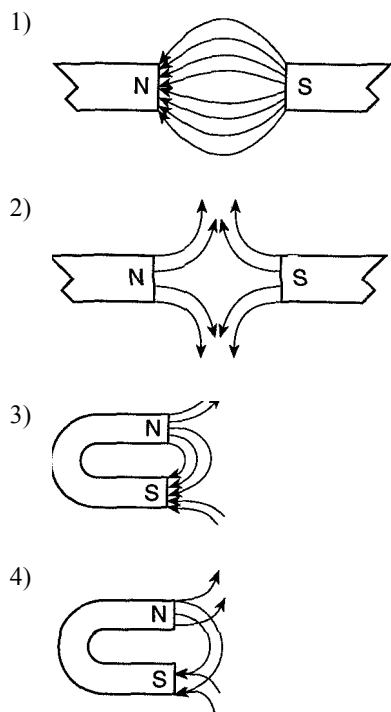


Which arrow best represents the direction of the needle of a compass placed at point *A*?

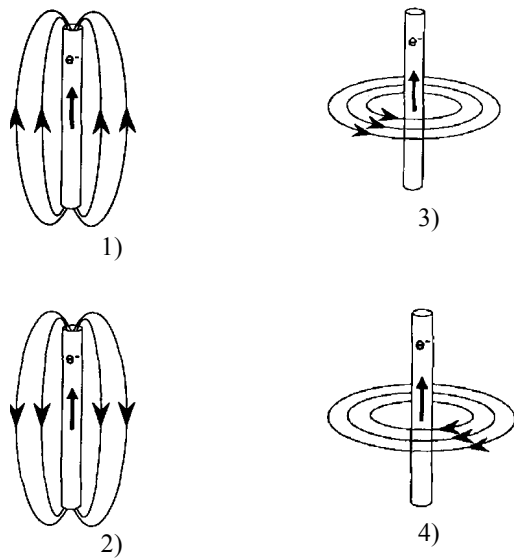
- 1) ↑
- 2) ↓
- 3) →
- 4) ←

# Regents Magnetism

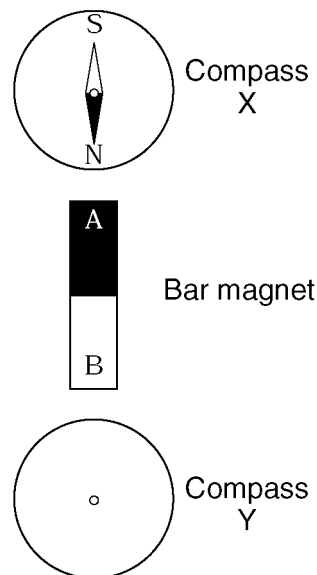
5. Which diagram correctly shows a magnetic field configurations?



6. An electron current ( $e^-$ ) moving upward through a straight conductor creates a magnetic field. Which diagram below correctly represents this magnetic field?

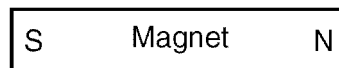


7. The diagram below shows two compasses located near the ends of a bar magnet. The north pole of compass *X* points toward end *A* of the magnet.



On the diagram above, draw the correct orientation of the needle of compass *Y* and label its polarity.

8. On the diagram of the bar magnet, draw a minimum of four field lines to show the magnitude and direction of the magnetic field in the region surrounding the bar magnet.



**Regents Magnetism  
Answer Key**

1. 2

2. 3

3. 2

4. 3

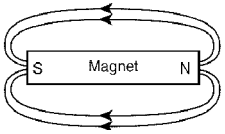
5. 3

6. 4

7. S



8.



or

